A newborn baby wearing a striped hat, being held by a person in a white coat. The baby is looking towards the camera with a calm expression. The background is softly blurred, showing a clinical or hospital setting.

Reducing Unnecessary Short Stay (<24 Hour) SCBU Admissions Through a Transitional Care Observation Pathway in a Level 1 Maternity Hospital

Project Lead : Dr Samy Allawendy Consultant Paediatrician
Project Team Neonatal steering group

Presented By Dr Muhammad Sikandar Tahir
(Project Team Member/Paediatric BST Trainee)
Mayo University Hospital Castlebar

BACKGROUND

- **Delayed neonatal transition** is usually physiological and self resolving, **but** can mimic pathological respiratory distress, often leading to short stay SCBU admissions and avoidable mother–infant separation.
- **Mother–infant separation** can negatively impact bonding, breastfeeding, and maternal wellbeing
- National guidance recommends **Uninterrupted skin to skin care** is recommended for stable newborns regardless of delivery mode or feeding plan
- **ATAIN (UK)** highlights that many term neonatal admissions with mild respiratory distress post delivery are avoidable, supporting safe ward based transitional care



THE PROBLEM & BASELINE AUDIT (2024)

Term and near-term infants with mild respiratory distress were **frequently admitted to SCBU for observation**

Baseline 2024: 43 out of 91 (47%) admissions were **short stay less than 24 hours with minimal medical input.**

This suggested **potentially avoidable SCBU utilisation and unnecessary mother infant separation**

No standardised ward based observation pathway existed, causing variation in assessment, documentation, and escalation

OBJECTIVES



Support normal physiological transition after birth, particularly post elective or emergency LSCS



Maintain oxygen saturations within target range on room air as per NRP guidance without unnecessary oxygen treatment



Achieve normal respiratory rate and resolution of mild respiratory distress within the the defined observation window



Provide an evidence-based, structured ward-based observation pathway, ensuring standardisation, safety, and timely escalation if deterioration occurs

SMART AIM

To reduce unnecessary SCBU admissions and short-stay (<24 hours) admissions

from a baseline of 47% (43/91) in 2024 to less than 25% of total respiratory distress admissions

within 6 months

through implementation of a structured transitional care observation pathway with clear and safe neonatal escalation criteria.

without increase in adverse events

METHODS

Established a MDT QI team (Maternity Ward, LR/OT, SCBU) under the governance of the **Local Neonatal Steering Group**

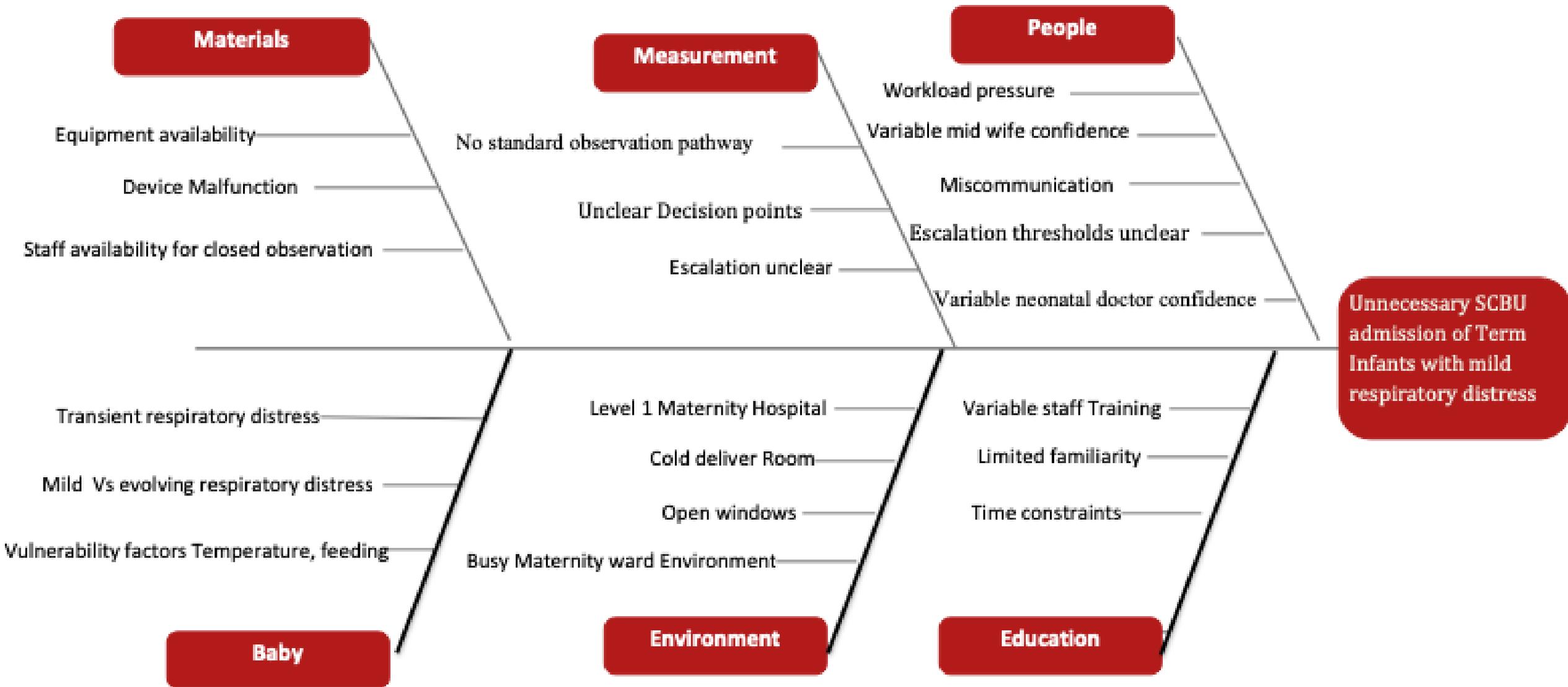
Systematically analysed root causes of short-stay SCBU admissions (<24 hours), identifying variation in observation tools and escalation decision-making

Applied structured QI tools (Fishbone Analysis and Driver Diagram) to identify key change ideas

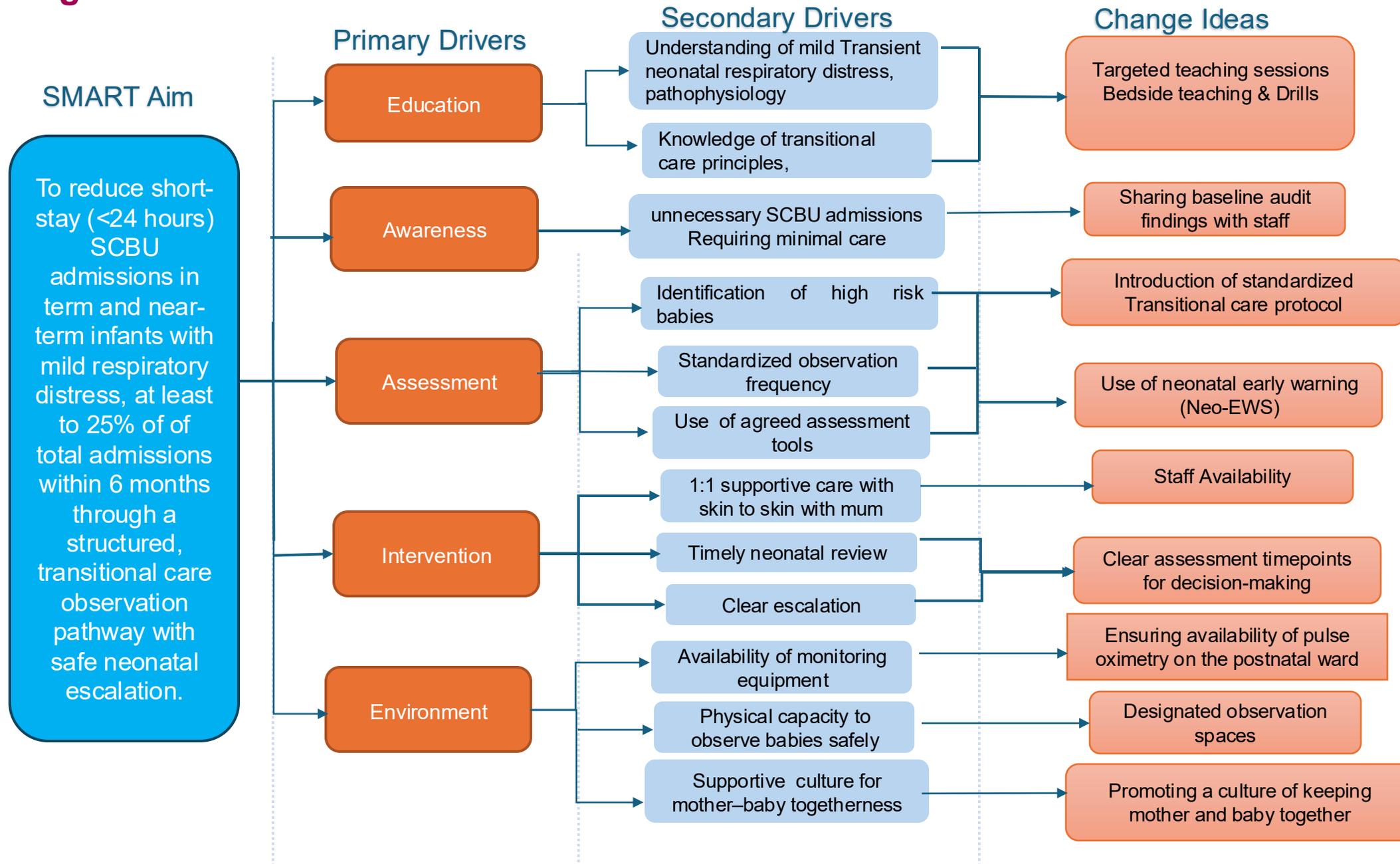
Co-designed and implemented a standardised Transitional Care Observation Pathway, incorporating; Clear eligibility criteria, Neonatal Early Warning Score (Neo-EWS) monitoring, Defined escalation and safety triggers

Implemented through **PDSA cycles** with **prospective QI logbook data** to monitor safety, compliance and outcomes and sustainability

ROOT CAUSE ANALYSIS (FISHBONE)



Driver Diagram



ELIGIBILITY CRITERIA

≥35 weeks gestation

RR <70/min

Mild work of breathing only

Target SpO₂ met as per NRP (e.g. ≥90% by 10 minutes in room air)

Normal tone, colour, perfusion. No other reason for SCBU admission according to the local admission policy

OBSERVATION CRITERIA

Neo-EWS every 30 minutes for 1 hour

Continuous pulse oximetry

Registrar review at 1 hour or earlier if triggered

Maintain normothermia (36.5–37.5°C)

TRANSITIONAL CARE PROTOCOL

ESCALATION CRITERIA

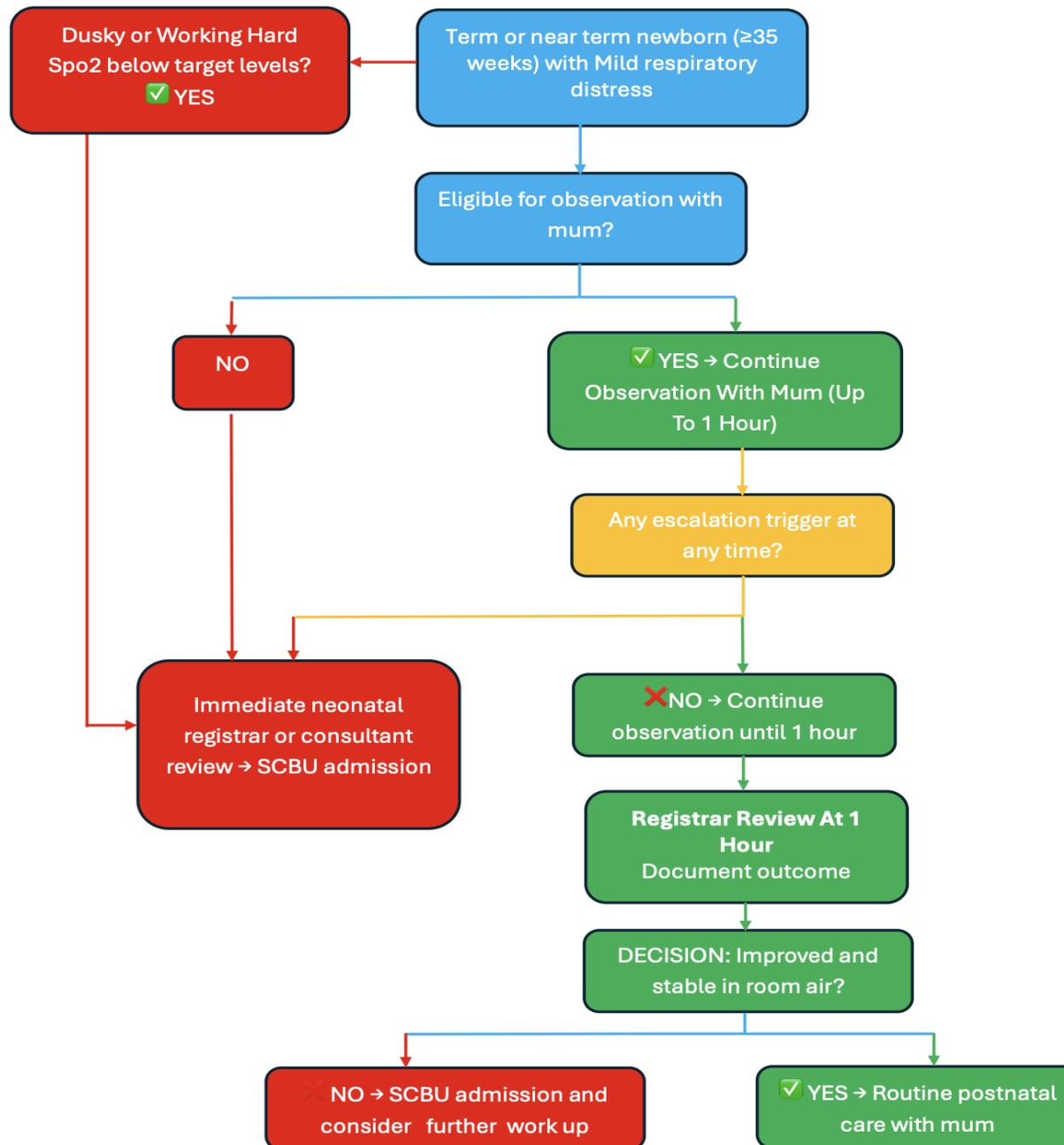
Immediate review by neonatal registrar or consultant if :

- Worsening respiratory effort
- Oxygen saturation persistently below NRP targets in room air
 - Temperature instability despite appropriate thermal care
 - Poor feeding, lethargy, hypotonia, or abnormal Colour

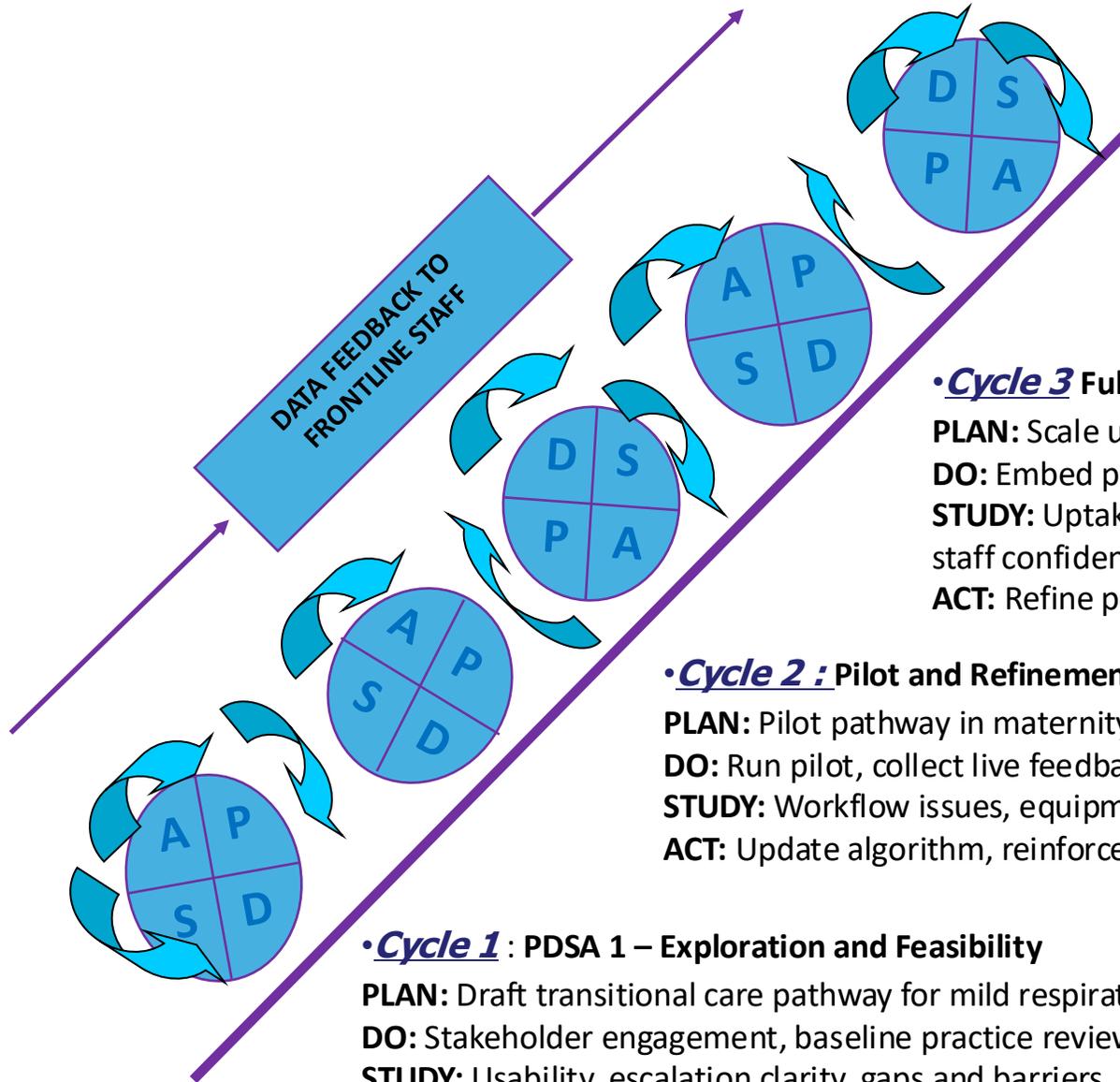
SUPPORTIVE CARE

Maintain normothermia (36.5–37.5°C) using Skin-to-skin contact (encouraged, provided oxygen saturation and temperature remain stable).

- Avoid unnecessary interventions (no routine oxygen unless SpO₂ below NRP targets).
 - Ensure breastfeeding support and parental reassurance.



SEQUENCE OF PDSA'S



•**Cycle 4: Sustainability and Spread , Improving staff confidence, External Bench marking**

PLAN: Embed into routine systems, strengthen staff confidence

DO: Portable oximetry, SCBU support on Maternity area, standardise tools, External benchmarking to compare practice across other hospitals.

STUDY: Feedback, compliance, documentation quality, outcome trend

ACT: Celebrate wins, reward champions, share learning for spread

•**Cycle 3 Full Rollout and standardisation (from Sep 2025)**

PLAN: Scale up and standardise pathway across maternity areas

DO: Embed pathway, improve documentation, ongoing education

STUDY: Uptake, avoided SCBU admissions, documentation completeness, staff confidence

ACT: Refine process, strengthen induction, sustain practice

•**Cycle 2 : Pilot and Refinement (Jul–Aug 2025), Expansion of stake holders involvement**

PLAN: Pilot pathway in maternity and recovery, widen MDT support, address environmental issues

DO: Run pilot, collect live feedback, involve QPS and key areas

STUDY: Workflow issues, equipment needs, staffing support, safety, documentation

ACT: Update algorithm, reinforce training, optimise environment

•**Cycle 1 : PDSA 1 – Exploration and Feasibility**

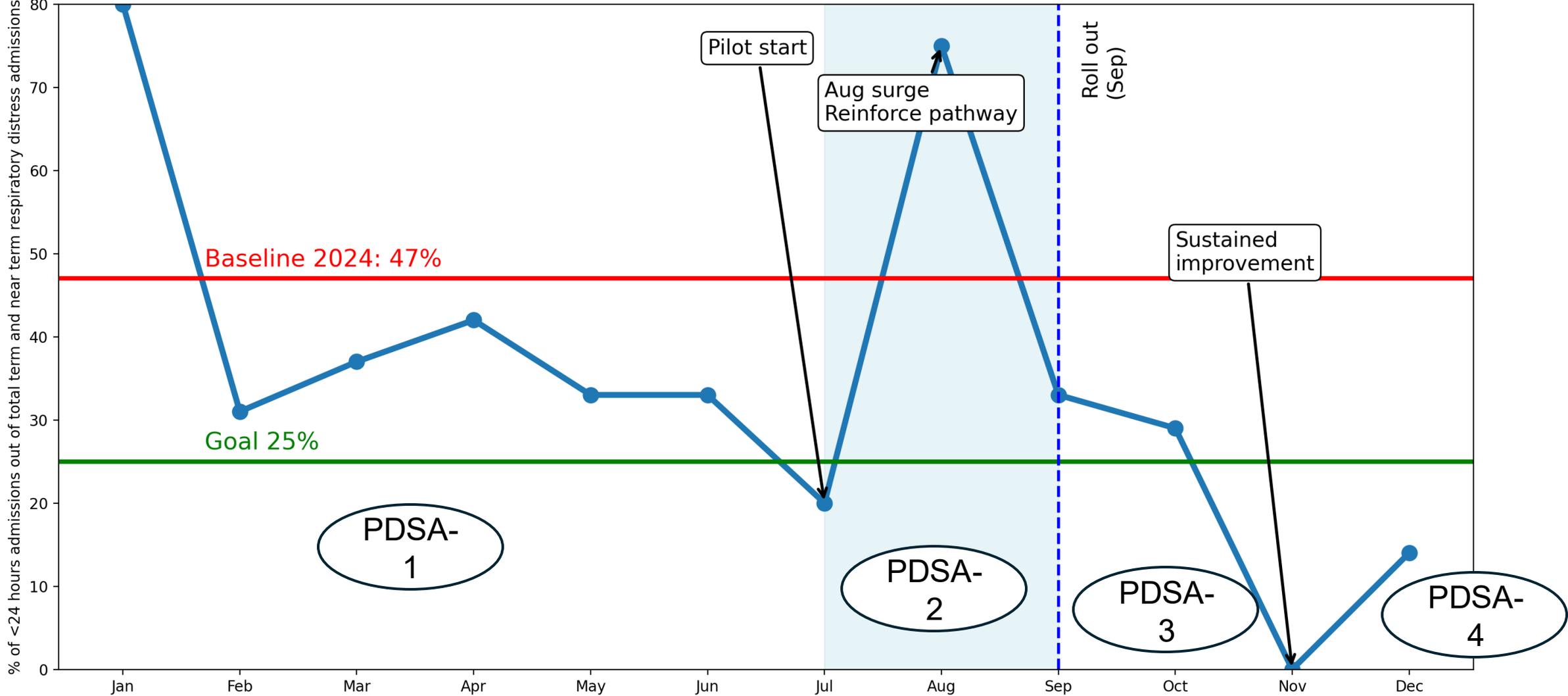
PLAN: Draft transitional care pathway for mild respiratory distress

DO: Stakeholder engagement, baseline practice review, brief training, managing the resistance

STUDY: Usability, escalation clarity, gaps and barriers

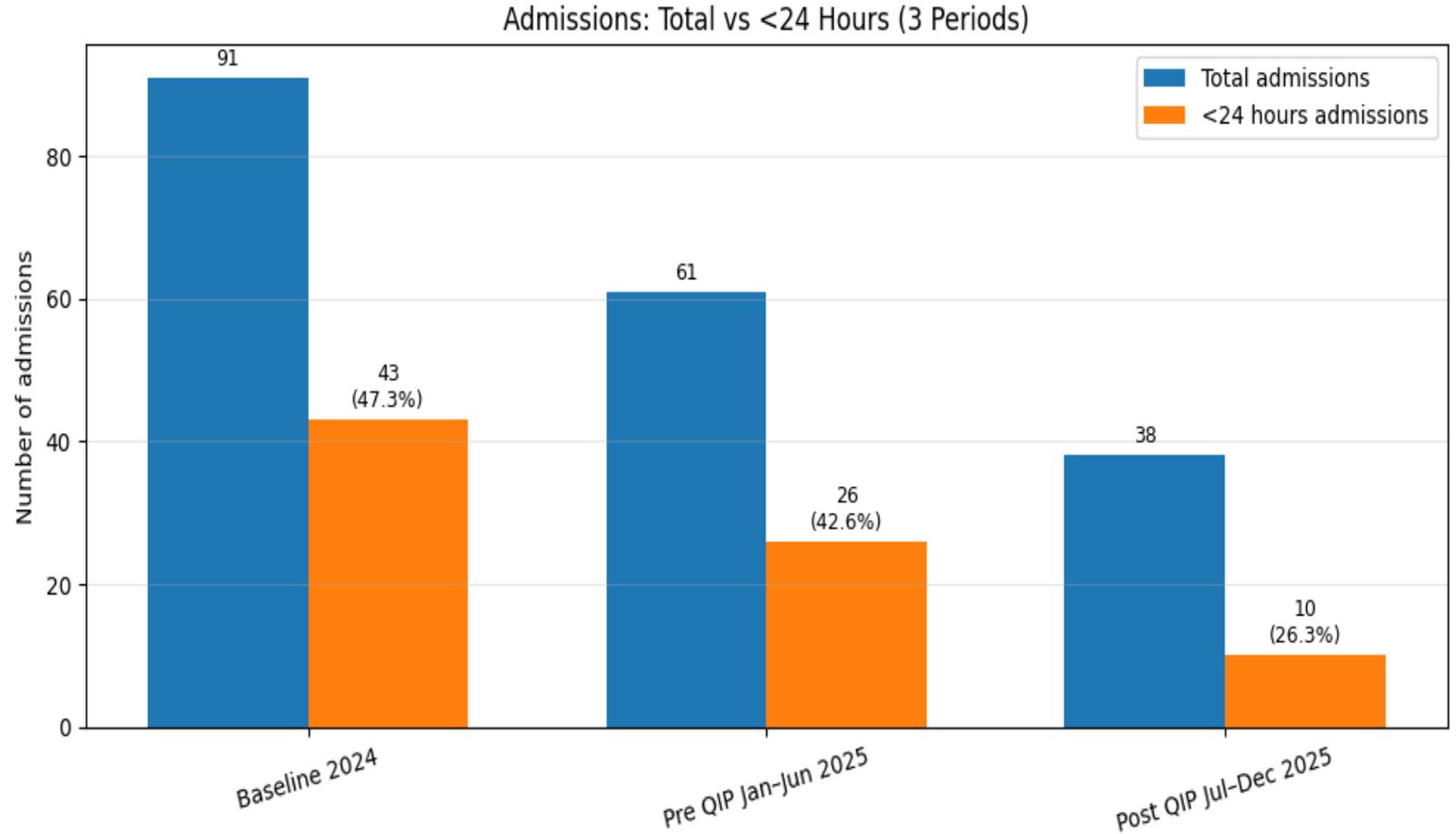
ACT: Refine pathway and documentation, prepare pilot

Run Chart: % Short stay SCBU Admissions (<24h) in Term RDS (2025)

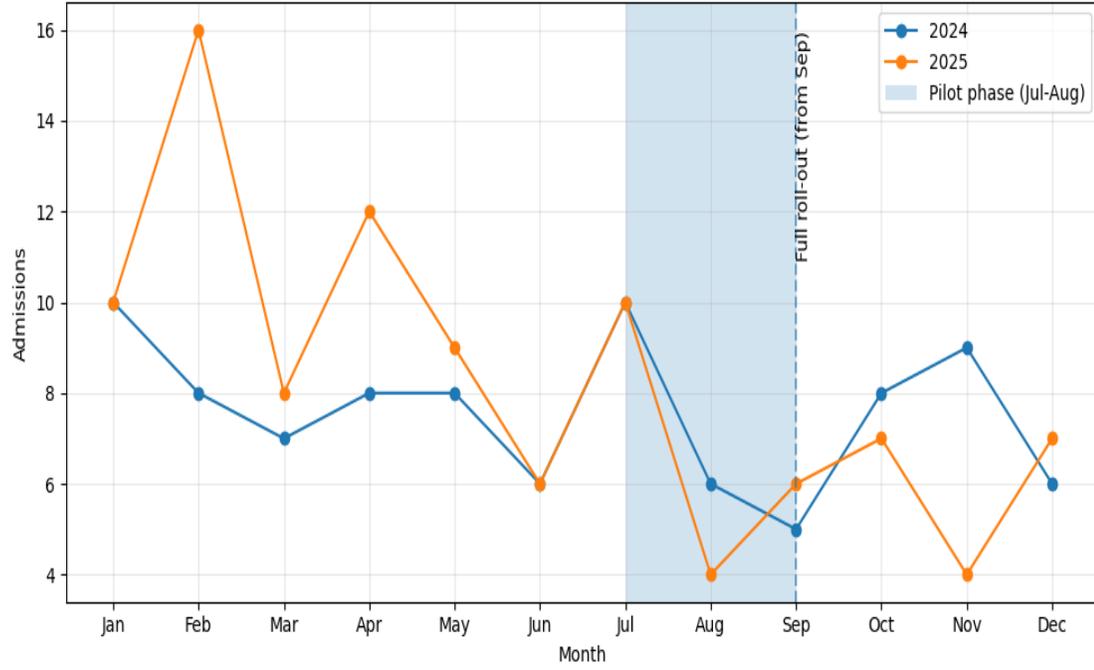


RESULTS

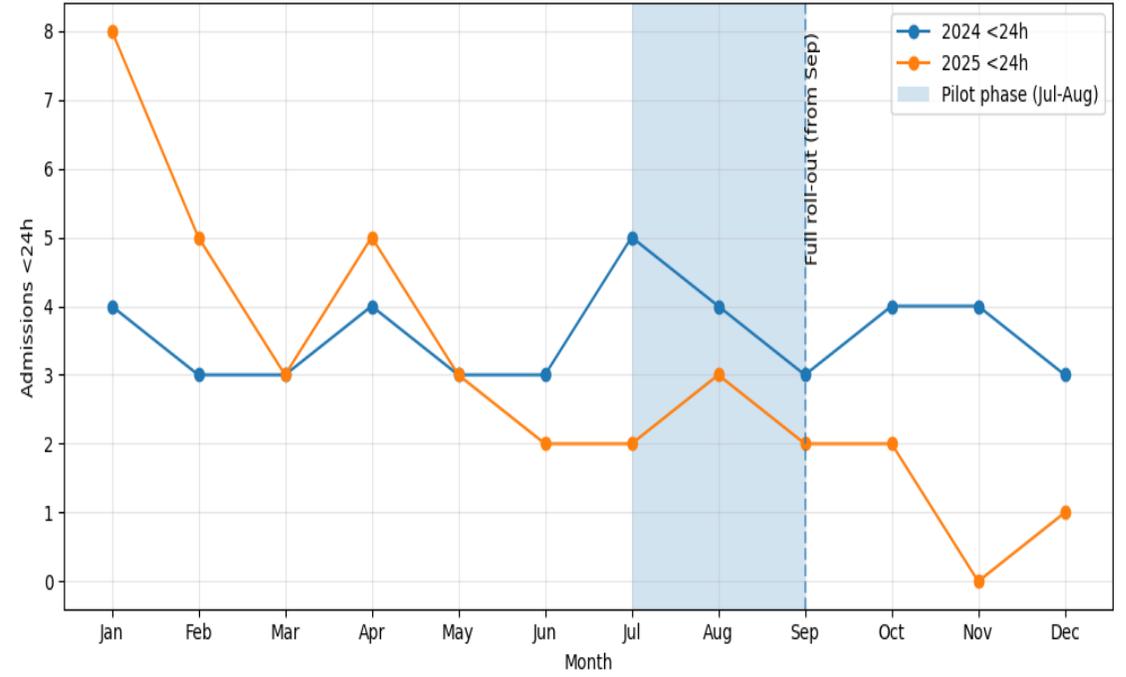
- Post-intervention period: **July–December 2025**
- Total Term/Near Term admissions with Respiratory distress : **38**
- Short-stay admissions (<24 hours): **10 (26%)**
- Reduction from **47% (baseline)** to **26%**, demonstrating improved resource utilisation while maintaining safety



Run Chart: Term/Near-Term Respiratory Distress Admissions (2024 vs 2025)



Run Chart: Term/Near-Term Respiratory Distress Admissions <24 Hours (2024 vs 2025)



Real Success!

Babies Stayed With Their Mothers

- **28 infants** were managed under the transitional care pathway
- **18 (64%)** remained with mother on the maternity ward and did not require SCBU admission
- **10 (36%)** required escalation to SCBU
- **8 short stay (<24 hours)**
- **2 prolonged stay (>24 hours)**
- **No adverse event reported so far.**



IMPACT & LEARNING

- Reduced unnecessary mother–infant separation
- Improved utilisation of limited neonatal resources
- Increased midwifery confidence with clear escalation pathways and ownership
- Standardised and safer clinical decision making
- Improved patient centred neonatal care

CONCLUSION, SUSTAINABILITY & NEXT STEPS

- Transitional care safely reduces **short stay** SCBU admissions.
- Clear escalation pathways maintain neonatal **safety**.
- Embedding the pathway into routine ward practice supports sustainability.
- Ongoing audit and governance ensure continued improvement.
- **Submitted** the Pathway to the MUH PPG for approval as an official local guideline.
- Collaborating with other QIP at **MUH** (improving **skin to skin care project** and the **red hat project**)

REFERENCES

1. Battersby C, Michaelides S, Upton M, et al. Term admissions to neonatal units in England: a role for transitional care? *BMJ Open*. 2017;7:e016050.
2. Guglani L, Lakshminrusimha S. Transient Tachypnea of the Newborn. *Pediatrics in Review*. 2008;29(11):e59–e65.
3. Hein HA, Ely JW, Lofgren MA. Neonatal respiratory distress in the community hospital: when to transport, when to keep. *J Fam Pract*. 1998;46:284–289.
4. American Academy of Pediatrics and American Heart Association. Neonatal Resuscitation Program (NRP), 8th Edition, 2021.
5. NICE. Postnatal Care up to 8 weeks after birth. NICE Guideline NG194, 2021.
6. Sweet DG, Carnielli V, Greisen G et al. European Consensus Guidelines on the Management of Respiratory Distress Syndrome – 2022 Update. *Neonatology*. 2023;119(1):3–52.



THANK YOU